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Printed November 27, 2015 from <http://www.cancer.net/navigating-cancer-care/how-cancer-treated/radiation-therapy/frequently-asked-questions-about-radiation-therapy>

[Frequently Asked Questions About Radiation Therapy \[1\]](#)

This section has been reviewed and approved by the [Cancer.Net Editorial Board](#) [2], 02/2013

This is the fourth article in a four-part series, and it addresses some of the most common concerns people have about radiation therapy. The other articles in this series provide an [overview of radiation therapy](#)[3], including the various types; explain [what to expect when receiving radiation therapy](#)[4]; and describe [the side effects of treatment](#)[5].

After being diagnosed with cancer, some people hesitate to receive radiation therapy because they are uncertain about the treatment and its possible side effects. However, your radiation oncologist or another member of the health care team can help you understand this treatment and describe what you can expect. Additionally, here are several answers to common questions about radiation therapy that may help address some of your concerns. Keep in mind, you can always ask your radiation oncologist to answer these or any other questions you may have about radiation therapy.

Q: What is the goal of radiation therapy?

A: Most people receive radiation therapy in an effort to eliminate all cancer cells as part of a curative treatment approach. In addition to destroying cancer cells and slowing tumor growth, radiation therapy can also be used to shrink tumors and reduce pressure, pain, and other symptoms of cancer in cases when it is not possible to completely eliminate the disease. This is called [palliative radiation therapy](#) [6], in which the goal is to improve a person's quality of life.

Q: Is it true that radiation cannot be controlled because it's invisible?

A: Although you can't see the radiation being used during your treatment, your radiation oncology team can control it using sophisticated computers and other equipment. Doctors have been safely and effectively treating patients with radiation therapy for more than 100 years.

Q: Will radiation therapy cause another cancer?

A: Having radiation therapy slightly increases the risk of developing a second cancer. However, it is important to remember that, for many people, radiation therapy can eliminate the current, existing cancer. This benefit far outweighs the small risk that the treatment could cause a new cancer later in life.

Q: Does radiation therapy harm surrounding organs?

A: The amount of damage done to the surrounding areas of the body depends on the type and location of the radiation. For example, [men with prostate cancer](#) [7] who receive radiation therapy to the prostate may experience bowel or bladder problems because these organs are located very close to each other. As much as possible, the radiation is aimed precisely at the tumor to avoid harming surrounding organs. Talk with your doctor to learn what parts of your body could be affected by radiation therapy and how to manage common side effects of treatment.

Q: Is radiation therapy painful?

A: Most people cannot feel radiation from the machine, even during daily treatments, so there is no need to worry that a treatment session will be painful. A few people have reported a slight warming or tingling sensation in the area being treated.

Q: Do all patients experience the same side effects of radiation therapy?

A: For some people, radiation therapy causes few or no side effects. For others, the side effects are more severe. No two cancers and no two patients are exactly alike; therefore, each radiation treatment is individually customized by the radiation oncologist. If a side effect occurs, it is often during the second or third week of treatment and may last for several weeks after the final radiation treatment. Your radiation treatment team will work with you to ease or prevent many of these side effects.

Q: Does radiation therapy cause infertility?

A: Radiation therapy to the pelvic area can [affect the reproductive system](#) [8]. For some women, permanent infertility (the inability to conceive a child or maintain a pregnancy) can occur, but usually only if both ovaries receive radiation. Men receiving radiation therapy to the testes or to nearby organs, such as the prostate, will have lowered sperm counts and reduced sperm activity, which affects fertility (the ability to father a child).

If you are worried your treatment plan may reduce your fertility, talk to your health care team before treatment begins. There are a number of [ways to preserve your fertility](#) [9].

Q: Does radiation treatment make a person lose his or her hair?

A: Radiation therapy is a local treatment, meaning it only affects the area of the body where the tumor is located. People do not lose their hair from having radiation therapy unless it is aimed at a part of the body that grows hair, such as the scalp.

Q: Should a person having radiation therapy avoid physical contact with friends and family because of possible radioactivity?

A: External-beam radiation therapy does not make a person radioactive at any time. The radiation is delivered to the body from a machine located in the treatment room so there is no radiation left behind once the treatment machine is turned off. However, with internal radiation therapy (also called brachytherapy), the implants placed in the patient's body deliver most of the radiation to the cancer, but some radiation can be emitted (released). Therefore, people who receive internal radiation therapy need to take specific precautions for a period of time to reduce others' exposure to the radiation.

Q: Is it true radiation is always used with chemotherapy and/or surgery?

A: Although some types of cancer respond best to combination treatment approaches, which may include radiation plus surgery, chemotherapy, or immunotherapy, radiation therapy alone is often an effective treatment for some types of cancer.

More Information

[Types of Treatment](#) [10]

[Managing Side Effects](#) [11]

[Sexual and Reproductive Health](#) [12]

Additional Resources

[National Cancer Institute: Questions and Answers About Radiation Therapy for Cancer](#) [13]

Links:

[1] <http://www.cancer.net/navigating-cancer-care/how-cancer-treated/radiation-therapy/frequently-asked-questions-about-radiation-therapy>

[2] <http://www.cancer.net/about-us>

[3] <http://www.cancer.net/node/24728>

[4] <http://www.cancer.net/node/24661>

[5] <http://www.cancer.net/node/24677>

[6] <http://www.cancer.net/node/25282>

[7] <http://www.cancer.net/node/24373>

[8] <http://www.cancer.net/node/25268>

[9] <http://www.cancer.net/node/29096>

[10] <http://www.cancer.net/node/25071>

[11] <http://www.cancer.net/node/25238>

[12] <http://www.cancer.net/node/25240>

[13] <http://www.cancer.gov/cancertopics/factsheet/Therapy/radiation>